



*Central Vermont Public Service Corporation*

May 17, 2006

Ms. Susan M. Hudson, Clerk  
Vermont Public Service Board  
Chittenden Bank Building, 4<sup>th</sup> Floor  
112 State Street  
Post Office Drawer 20  
Montpelier, Vermont 05620-2701

Re: CVPS and GMP Comments and Recommendation Concerning the  
Establishment of the Budget for Vermont's Energy Efficiency Utility

Dear Ms. Hudson:

This submission sets forth the joint comments of Central Vermont Public Service Corporation ("Central Vermont" or "CVPS") and Green Mountain Power Corporation ("Green Mountain" or "GMP") (together the "Companies") concerning the establishment of the 2006, 2007, and 2008 Energy Efficiency Utility ("EEU") budget, including recommendations on what policy guidance the Public Service Board (the "Board") should provide the EEU to guide its system wide Demand Side Management ("DSM") implementation efforts. These comments are made in accordance with the procedure established by the Board as part of its efforts to implement the new authority over the EEU established by the Vermont General Assembly's passage of Act 61 in 2005.

Energy efficiency and conservation is a key component of Vermont's electric power resource portfolio. Central Vermont and Green Mountain endorse the view that there is no better means of meeting the public's need for energy services than by matching power consumption to that which is necessary to operate electrical equipment designed to be efficient and cost-effective.

The execution challenge for the Board is to determine how this can best be achieved in practice. The need for balancing is explicit in the somewhat competing tensions described by the least cost planning criteria of 30 Vermont Statute Annotated (“V.S.A.”) § 218c and the multiple goals of 30 V.S.A. §§ 209(d) and (e).

In these comments, CVPS and GMP do not offer a specific recommended dollar amount to the Board with respect to the EEU budget, believing that judgment to be best weighed and balanced by the Department and Board, as public policy bodies and with the input of the stakeholders. The Companies are stakeholders and offer the following considerations to help guide the Board in its deliberation in this matter. These comments are organized around specific recommendations that CVPS and GMP believe will be useful as further discussion on the EEU budget ensues.

- A. Determining the correct level for the EEU budget primarily requires a trading-off of two statutory criteria: the acquisition of all cost-effective DSM while being mindful of the likely increase in rates that follow from higher EEU charges.

The Companies recognizes that the establishment of the EEU budget is a difficult and complex exercise that requires the Board to make trade-offs between two important planning criteria: (i) the need to realize all cost-effective DSM; and (ii) the impact of the proposed budgets on customer rates. In the past the pace of DSM spending was fixed by the statutory cap. Under the new rubric, the Board must balance these criteria when establishing the budget.

- B. The market price of electricity has risen substantially over the past 3 years and as such the opportunity for cost-effective substitution of efficiency resources in the place of power has clearly increased over this time.

As is clear from observing regional wholesale electric market reports, the needs of many utilities across the region to increase rates, and costs for underlying fuels, the market price of electricity has risen substantially over the past three years. The increase in the market price of electricity implies the following conclusions respecting the costs and benefits of additional DSM efforts:

- Today’s higher wholesale market prices make more conservation measures cost-effective at the retail level, all other things the same.

- If wholesale power prices remain at relatively higher levels (*i.e.*, consistent with the current forward curve for wholesale power and as assumed in models used in the Board's April workshop), the rate effects of higher DSM spending are expected to be significantly smaller than they had been in the past.
  - The rate impacts of additional DSM spending are expected to be modest because the magnitude of the projected savings of electrical energy, production capacity, and transmission and distribution deferrals are large enough, approximately, to fully offset the rate increasing effect otherwise due to lower kWh sales volumes that influences the unit charges that are derived in rate setting.
  - This leaves whatever change occurs in the EEC itself, associated with changing DSM efforts and budgets, as the primary source of rate effect on an expected basis in the near term (*i.e.*, increase the EEU budget by 50% and the current approximate 3% EEC will rise to 4.5%, everything else is expected to cancel out, and rates will be 1.5% higher).
- C. Customers have expressed concern over the rate impacts associated with increased DSM spending, and these concerns must be taken into account in the establishment of the EEU budget.

While the Companies acknowledge that the high market prices now being experienced in the regional market support increased DSM spending, at least in the near term, there can be significant undesirable effects on consumers when unit electric charges are higher than they otherwise would have been. CVPS and GMP therefore urge the Board to give significant weight to the comments it receives from consumers on this point. To date, these comments demonstrate that:

- Many business consumers are in economic competition with businesses that are located outside of Vermont, and relatively small increases in rates, especially when combined with other locally intensive inflation, can cause significant harm.
- Some customers, because of the nature of their uses of power or because of their own internal conservation focus, have less opportunity than other customers to benefit from intensified DSM efforts, so rate effects are not negated for these customers by bill savings achieved through participating in the EEU programs.<sup>1</sup>

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<sup>1</sup> An exemption process for individual customers is provided for in 30 V.S.A. § 209(d)(4). However, for the relatively small business located in Vermont, that process may appear onerous and result in no action on the customer's part.

- D. Vermont's Distribution Utilities retain the responsibility to plan and invest in energy efficiency targeted to defer specific transmission and distribution upgrades. Under the status quo, DSM expenditures for those purposes will effectively be decided separately and add to the expenditures that the EEU makes on statewide energy efficiency. The potential for this spending should also be taken into account in the establishment of the EEU Budget.

As the Board is aware, the EEU is only responsible for the delivery of so-called "system-wide" DSM. DSM found to be a cost-effective alternative to local electric supply problems remains the responsibility of distribution utilities. If the EEU budget is set low, in concept the DU's may be required under their distributed utility planning responsibilities to make substantial DSM investments (driven largely by such DSM's capture of the electric energy savings value, as a part of studying local transmission and distribution system constraints). CVPS for one would likely seek that such DSM expenditures be recovered thru an adder to the EEC.

In view of this relationship, the Board should now consider whether and to what extent its decision on an EEU budget will really determine DSM spending in Vermont. Due to the bifurcation of DSM responsibilities, there is potential for customers, within individual utilities, to experience additional DSM related near-term rate impacts and react negatively should they perceive that they are responsible for a larger efficiency services bill than they expected from the Board's EEU budget process.

- E. While the Companies believe that choosing the right trade-off is a policy decision best made by the Public Service Board, there are a number of reasonable actions that should be taken irrespective of the EEU budget levels (but made more important at higher budget level), to respond to consumer concerns, mitigate the expected impact on rates and the reduce the risk that the impact could be greater than projected.

Identifying circumstances where results can become a problem, helps to identify what is best to incorporate in program planning and design to mitigate the potential for undesirable effects later. The below list of factors represents the Companies' attempt to provide guidance that the Board should take into account as it directs EEU activities, independent of its decision on the EEU budget level:

- Market prices for electricity are highly variable. Changes in the outlook for electric prices should be closely monitored. To get the most value from DSM programs, the Board should seek development of a set of programs that have the ability to ramp up or down rapidly as power market values change.
- The EEU budget should be revisited and changed as regularly as made necessary by level changes in market prices. The EEU budget should not just ratchet up, or down, irrespective of market price levels. To get the flexibility and optionality benefit the Board described in its Order in Docket 5270, the EEU must design optionality into a flexible portfolio of DSM programs. That way if prices keep going up, the Board can jump on the opportunity and vice versa.
- While market prices are higher than in the past, since November when the Board began this process, forward prices - while still relatively high - have subsided significantly. This downward volatility was caused by the very warm winter of 2005/06, and a surprising near-term over supply of natural gas. Prices have fallen and the time pattern of forward contract prices depicts another drop-off beginning in 2008 -- apparently anticipating new LNG supplies and resultant more moderate gas prices. High future market prices for power are not a certainty.
- It is anyone's guess what will happen beyond the forward price curve that currently ends in 2010. To get the most value from efficiency, the EEU programs should be designed as to have as much flexibility as possible so that they can be revisited as needed.
- Also, when retail power prices are rising nationally, as they now are, equipment manufacturers respond with more efficient offerings and consumers, including those in Vermont, increasingly adopt cost-effective measures on their own. The EEU's program offerings' cost-effectiveness have been evaluated in a manner that allows for certain assumed levels of inherent consumer behavior but these are difficult assumptions to gauge. Scientific methods should be used to monitor so that incentives are redirected away from actions that are happening anyway in other states.
- Current modeling suggests that the DSM supply curve rises sharply at the point of high acquisition rates. Incentives for retrofit measures are generally thought to require higher incentives to move the market. Given Vermont's long record of conservation, it seems likely that there is a risk that the societal cost and utility cost of DSM will increase at high program levels. It may be advisable to avoid the high cost measures on the steep part of the supply curve unless unusually high costs justify the expenditures.
- Since the recent cost-effectiveness study indicates that manufacturing customers are the most cost-effective and lowest-cost customers to

serve with DSM, the EEC for these customers should, for equity and economic reasons, be set at a lower level per kWh than for non-manufacturing customers.

- Since the incentives offered by the EEU are expected to be the most significant source of rate effects, to the extent that programs can be designed so that participants pay back over time the up-front initial incentive out of the savings they enjoy over time, that rate impact can be mitigated. This would also be consistent with 30 V.S.A. § 209(e)(6) which directs the Board to consider innovative approaches including “...customer contributions to the cost of efficiency measures.”
- DSM savings have a life that is related to the life of the associated equipment yet the EEU budget pays for all DSM out of current revenues. For measures that have a long life and therefore which have significant future savings, the EEU should be permitted to borrow to fund those measures and collect an EEC over time sufficient to pay off the financing. This would lower current rate effects, but if future market prices prove to be lower than expected now, the future rate impacts will be relatively large -- and visa versa.

F. Not all kWh are created equal. By targeting DSM efforts towards the capture of the most valuable kWhs with low risk DSM, better than average savings and therefore lower than average (possibly even positive) rate impacts, will be the result.

Targeting DSM toward the most valuable kWh can reduce rate impacts and improve program benefit-to-cost results regardless of how wholesale market price levels change in the future. As a result, in addition to setting the EEU budget, the Board should consider taking action based on the following policy considerations:

- The most valuable kWh are peak period kWhs - especially those consumed in Vermont coincident with the summer peak in New England (because LICAP cost allocation is expected to be driven primarily by Vermont's share of that NE peak), and those kWh that are coincident with the highest loads on sections of the network that are in need of expensive upgrade due to high loads. These times are highly likely to coincide with reasonably high energy prices as well.
- Because of the likely implementation of LICAP, end-uses such as air conditioning, most particularly commercial air conditioning, should be targeted for both efficiency and load control in the EEU's budget.
- Targeting DSM dollars to fuel-switching end use devices away from electrical devices and to a primary fuel, especially targeting off-peak electrical end-uses such as controlled load water heating, are probably

the most risky DSM investments for Vermont and should be ended. In general, the recently completed DSM cost-effectiveness potential study shows residential fuel-switching programs to be, at best, marginally cost-effective on an expected cost basis. Consumers who are incented to switch are at risk that the price of the primary energy source they switch to will increase (witness current propane, oil and wood prices) and the off-peak kWhs that are saved tend to be the lowest valued. As a resource, the persistence of fuel-switch load reductions is most questionable in the circumstance when electric system savings tend to be the greatest (*i.e.*, when primary fuel prices are the highest). We recommend that the Board not provide funding for these programs.

- Some consumers are fuel-switching to electricity on their own for some end uses because of the high cost of primary fuels. The EEU program designs in part should be redirected to make sure that consumers are incented to purchase high efficiency and load-control-capable electrical equipment in these end uses (*e.g.*, cold climate heat pumps, storage water heaters, solar/electric backup water heating, cooking technologies, dryers, heat recovery, etc).
- In a few years, we expect the so-called plug-hybrid vehicle to potentially begin penetrating the transportation market in Vermont. The Board and Department should begin to consider what that could mean for the EEU and how it could contribute to higher system utilization and potentially lower rate impacts. Consider the following comparison, at high gasoline prices (*e.g.*, \$3+/ gallon) the electric running cost of such a vehicle is between  $\frac{1}{4}$  and  $\frac{1}{2}$  given the Companies' current residential electric rate alternatives. This use could be managed to stay off the peak hours.
- The wholesale power market now assigns congestion and loss costs by location within Vermont. To the extent that there are sub-regions within the state that tend to incur higher congestion and loss costs that would be moderated by conservation, DSM applied in those areas will be more valuable to all of Vermont.

- G. Vermont's distribution utilities are financially weak and, as the analysis performed for the alternatives to the Northwest Reliability Project demonstrated, can not feasibly finance large scale deployments of DSM to defer network upgrades while maintaining their commercial credit status at the level otherwise needed to perform their obligation to serve.

As utilities gain experience in conducting distributed utility planning to help resolve transmission and distribution constraints, it is likely that more projects will be found to be deferrable or avoidable through intensified DSM

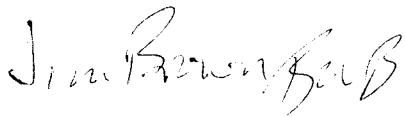
efforts. However, utility investments in DSM are problematic, since they involve the purchase of off-balance sheet assets and thereby consume utility investment capabilities. If there is a very valuable network deferral that DSM can accomplish, then it will most likely need to be funded ultimately by revenues collected thru the EEC.

- For the foreseeable future, CVPS will not be able to contribute significantly to large-scale DSM investments due to its non-investment grade credit status and the potentially large outlays of such undertakings. While investment grade, GMP will also face access to capital barriers limiting its ability to make significant DSM contributions.
- The Board should facilitate an open discussion of DSM budgeting and ratemaking in total - for both the EEU and the DUs. We suggest that the salient issues are: (i) how much should be spent on DSM in total, (ii) how should DSM be delivered, (iii) how should the funds be raised, (iii) who pays, and (iv) what are the effects in total.
- The rate impact of deferring network upgrades that would have been paid for locally (as opposed to regionally funded PTF) will be lower because Vermont consumers benefit from 100% of the savings -- as opposed to approximately 4% for PTF. While Vermont did not support this cost allocation system before ISO-NE or the FERC, it is a fact Vermont should not ignore when allocating its scarce funds to DSM activities.

The Companies hope that these comments are helpful and provide a policy framework to help the Board make an appropriate determination on the level for the EEU budget. CVPS and GMP understand that making appropriate trades-offs is difficult and complex. We have struggled with the methods for pacing the acquisition of DSM. The recommendations contained in these comments are based in large measure on our experience in trying to make comparable decisions.

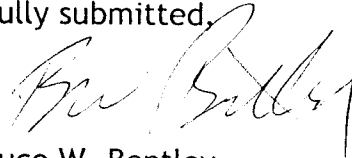


Central Vermont and Green Mountain very much appreciate the opportunity to comment and thanks the Board for proceeding in this exercise in a collaborative manner. To the extent that it would be helpful, the Companies are prepared to participate in further efforts to hone the EEU budget and DSM program delivery strategies so that these matters can be decided so as to best serve the interests of customers. If you have questions concerning these comments, please do not hesitate to contact us.



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Respectfully submitted,



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cc: Act 61 Service List